

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-21. (canceled)

22. (currently amended) System for data processing a security critical activity in a secure management mode in a computer, the system comprising:

a computer comprising a computer processor, a computer bus, a bridge, a main memory, and a plurality of handling devices connecting to the computer processor via the bridge, the main memory being one of the plural handling devices;

a security device comprising a security device processor with a protection mode signal generator (SGpm) and an alter signal generator (SGa), the security device processor connected to the bridge;

a switch connected between the bridge and each handling device, the switch containing a table of addresses to different ones of the handling devices including parts of the handling devices, and a comparator, the table having accessibility allocations specifying handling devices or the parts thereof allocated only to the security device and allocated to the computer processor operating in a normal mode, the table of the switch being changeable only under control of signals generated by the security device; and

an alter signal receiver (S<sub>R</sub>a), a source signal receiver (S<sub>R</sub>s), and a protection mode signal receiver (S<sub>R</sub>pm) connected to the switch, wherein,

the switch is connected to address lines and to operation lines of the bus,

the switch is configured for i) a first normal mode wherein the computer processor has access to a first group of the handling devices, and ii) a second protected mode wherein the computer processor is denied access to the first group of handling devices and the security processor is allowed access to the first group of handling devices and to execute a security critical activity with the first group of handling devices,

said signals from the security device, enabling the security device and the security processor access to the handling devices and denying the computer processor access to the handling devices, changes the switch switches from the first normal mode into the second protection mode, and

the computer processor and the security device processor are separate processors.

23. (previously presented) The system of claim 22, wherein to enter the secure management mode, i) the protection mode signal generator issues a request signal to the protection mode signal receiver, and ii) based on information in the table, access by the computer processor to the handling devices is

withdrawn and access to the handling devices or the parts thereof is solely limited to the security device processor.

24. (previously presented) The system of claim 22, further comprising:

a director connected to the switch and connected to each handling device, wherein,

the director is connected to the address lines and to the operation lines of the bus.

25. (currently amended) The system of claim 24, wherein,

each the switch further comprises an enable-abort line, and the director is connected to the switch via the enable-abort line.

26. (previously presented) The system of claim 22, wherein,

only the security device can change contents of the table, the security device configured so that the alter signal generator sends an alter signal to the alter signal receiver to alter the contents of the table.

27. (currently amended) The system of claim 22, wherein,

~~the~~ each handling device comprises a first part of the main memory and a second part of the main memory,

~~one~~-~~of~~ the switch switches is connected between the first and second parts of the main memory and the bridge,

in the normal mode, the contents of the table allows access to the first part of the main memory to the security device processor and allows access to the second part of the main memory to the computer processor, and

in the secure management mode, the contents of the table allows access to the first and second parts of the main memory to only the security device processor.

28. (currently amended) The system of claim 27, wherein, the ~~one~~ switch further controls access to the second part of the main memory based on a source making the access request.

29. (currently amended) The system of claim 22, wherein,

~~the~~ each handling device comprises a screen controller of a monitor,

~~one~~-~~of~~ the switch switches is connected between the screen controller and the bridge,

in the normal mode, the contents of the table allows the computer processor full access, via the controller, to the monitor, and

in the secure management mode, the contents of the table denies the computer processor complete access to the monitor, or parts thereof, and allows the security device processor access to a part of the monitor denied to the computer processor.

30. (previously presented) The system of claim 22, wherein,

each handling device is one of a part of the main memory, a hard disk, a keyboard, a monitor, a card slot, a mouse, floppy drive, and a smart card reader.

31. (previously presented) The system of claim 22, wherein,

there are plural bridges, and  
at least one bridge is one of a Host-PCI bridge and a E-ISA bridge.

32. (previously presented) The system of claim 22, wherein,

the security device processor is configured to i) run the normal mode with access to a second group of the handling devices, and ii) run the security critical activity in the secure

management mode with access to both the first and second groups of the handling devices, and

the switch is configured to control access to each handling device by the comparator checking an access request from the computer processor and the security device processor with the accessibility allocations in the table, a positive checking result by the comparator directing data and operation signals to and from the accessed handling device.

33. (previously presented) System for data processing a security critical activity in a secure management mode in a computer, the system comprising:

a computer comprising a computer processor, a bridge, and a main memory connected to the computer processor via the bridge;

a security device comprising a security device processor with a protection mode signal generator (SGpm), the security device processor connected to the bridge;

a switch connected between the bridge and the main memory, the switch containing an information table and a comparator, the table having accessibility allocations specifying parts of the main memory allocated only to the security device and other parts of the main memory allocated to the computer processor operating in a normal mode,

the table of the switch being changeable only under control of signals generated by the security device; and

signal receivers connected to the switch, wherein,

the switch is connected to address lines and to operation lines of the computer,

the switch is configured for i) a first normal mode wherein the computer processor has access to a first part of the main memory, and ii) a second protected mode wherein the computer processor is denied access to the first part of the main memory and the security processor is allowed access to the first part of the main memory and to execute a security critical activity with the first part of the main memory,

said signals from the security device, enabling the security device and the security processor access to the main memory and denying the computer processor access to the main memory, changes the switches from the first normal mode into the second protection mode, and

the computer processor and the security device processor are separate processors.

34. (previously presented) The system of claim 33, wherein,

the security device processor is configured to i) run the normal mode with access to a second part of the main memory, and ii) run the security critical activity in a secure management

mode with access to both the first and second parts of the main memory, and

the switch is configured to control access to each part of the main memory by the comparator checking an access request from the computer processor and the security device processor with the accessibility allocations in the table, a positive checking result by the comparator directing data and operation signals to and from the accessed parts of the main memory.

35. (previously presented) The system of claim 33, wherein,

the security device processor is configured to i) run the normal mode with access to a second part of the main memory, and ii) run the security critical activity in a secure management mode with access to both the first and second parts of the main memory.

36. (currently amended) System for data processing a security critical activity in a secure management mode in a computer, the system comprising:

a computer comprising a computer processor, a computer bus, a main memory, a connecting element connecting the computer processor to the main memory;

a security device comprising a security device processor with a protection mode signal generator (SGpm) and an alter signal generator (SGa), the security device processor connected by the connecting element to the main memory;

a switch connected between the connecting element and the main memory, the switch containing a table and a comparator, the table having accessibility allocations for the security device and for the computer processor,

the switch being changeable only under control of signals generated by the security device; and

an alter signal receiver (SRa), a source signal receiver (SRs), and a protection mode signal receiver (SRpm) connected to the switch, wherein,

the switch is connected to address lines and to operation lines of the bus,

the switch is configured for i) a first normal mode wherein the computer processor has access to a first part of the main memory, and ii) a second protected mode wherein the computer processor is denied access to the first part of the main memory and the security processor is allowed access to the first part of the main memory to execute a security critical activity with the first part of the main memory,

said signals from the security device, enabling the security device and the security processor access to the main memory and denying the computer processor access to the main

memory, changes the switches from the first normal mode into the second protection mode, and

the computer processor and the security device processor are separate processors.

37. (previously presented) The system of claim 36, wherein,

there are plural connecting elements, and  
the switch is configured to control access to each part of the main memory by the comparator checking an access request from the computer processor and the security device processor with the accessibility allocations in the table, a positive checking result by the comparator directing data and operation signals to and from the accessed handling device.